REMARKS

Claims 1-36 are pending in this application and have proposed to be amended as indicated above. Applicant has proposed to amend the claims via the present Amendment to better comply with the Office's requirements as well as present the rejected clams in better condition for appeal. *See* 37 C.F.R. § 1.116. The proposed Amendment does not raise issues of new matter since the added limitations were an inherent limitation, does not present new issues that require further consideration or search because the limitations added to the claims were already present in other pending claims and addressed by the Office in the final Office Action, and finally does not present additional claims without canceling a corresponding number of finally-rejected claims. *See* M.P.E.P. § 714.13. Thus, Applicant respectfully requests entry of the proposed amendments to the claims.

Rejection – 35 U.S.C. § 112 ¶ 1

Claims 27-34 have been rejected under 35 U.S.C. § 112, first paragraph, as failing to comply with the written description requirement for the reasons set forth on page 2. Applicant respectfully traverses the rejection.

The Office argues that the claim limitation of "without insulation" is new matter since the term "insulation" never occurs in the specification as filed. The Office contends that clear support is needed for this claim limitation in the specification.

Such support is found in paragraphs [43] through [45] of the specification as noted in the previous Amendment of 28 April 2004. Referring to Figure 3, the specification describes that the apparatus of the invention comprises a power supply 4, voltage controller 6, current controller 8,

conducting means 10, and compressing means 12. *See Specification at [43].* The composite perform 2 is located within the compressing means 12. *See Specification at [44].* The electrical current flows from the power supply, through the voltage controller, through the compressing means, and then through the composite perform. *See Specification at [44].* Thus, the compressing means acts as the electrical connection means to the composite perform. *See Specification at [44], emphasis added.* The compressing means is therefore made of a material that is electrically conductive. *See Specification at [44], emphasis added.*

Based on this description of the apparatus, the skilled artisan would have understood that the electrical current passes through the compressing means to flow through the composite perform. For that to occur, the compressing means are electrically conductive. Therefore the compressing means cannot contain any electrical insulation that would prevent the flow of the electrical current. In light of the knowledge available to the skilled artisan about electricity and circuits, it would not have been necessary for the specification to expressly state that the compressing means is without insulation.

Accordingly, the specification provides support for the claim limitation of "without insulation" and Applicant respectfully requests withdrawal of this rejection. Even though not necessary since such a limitation was already inherent in the claims, Applicant has amended some of the claims to specify that the compressing means has no "electrical" insulation *solely* in an effort to expedite prosecution.

Rejection – 35 U.S.C. § 102(b) over JP '209

The Office has rejected claims 11-13 and 24-26 under 35 U.S.C. § 102 (b) as being anticipated by JP '209 (Japanese Patent 4-229,209) for the reasons listed on pages 2-3 of the Office Action. Applicant respectfully traverses this rejection.

The rejected claims recite a structural member that is made by a process where a composite perform is subjected to compression while flowing an electrical current with a voltage across the preform. The Office has not substantiated, however, where such a limitation is taught by JP '209.

Instead, the Office argues that this limitation is a process limitation which does not affect the product in a structural sense and hence does not impart patentability to the claims. Applicant previously disagreed with the Office's rationale and provided examples of how the process limitations in the claims would affect the product in a structural sense. The Office responded by arguing that other than attorney conjecture, there was nothing to show what the differences would be. Applicant repeats that it is an inescapable conclusion to the skilled artisan that the application of pressure during the process would have to create product differences. For example, compression allows consolidation of the plies of the composite perform. *See specification at [41].* Thus, the plies are permanently bonded to the adjacent plie(s). *See specification at [42].*

Thus, the skilled artisan would recognize the Office's argument that the "product would be the same whether or not the compression is performed" as simply not true. Thus, the Office has not shown that JP '209 teaches each and every limitation in the claims and Applicant respectfully requests withdrawal of this ground of rejection.

Rejection – 35 U.S.C. § 102(b) over Kalnins

The Office has rejected claims 27-34 under 35 U.S.C. § 102 (b) as being anticipated by Kalnins (U.S. Patent No. 4,193,956) for the reasons listed on page 3 of the Office Action. Applicant respectfully traverses this rejection.

Independent claims 27 and 34 currently contain the limitation that the apparatus contains means for flowing the current across a composite structure while compressing the composite perform without insulation. Independent claims 35 and 36 contain the limitation that the apparatus contain means for compressing the composite structure at a pressure ranging from about 0.7 to about 4.1 MPa.

The Office, however, has not substantiated its burden of showing that Kalnins teaches or suggested either of these limitations. The Office argues that the claim limitation of "without insulation" is new matter since the term "insulation" never occurs in the specification as filed. Thus, the Office has not considered this limitation as part of the claims in rejecting these claims.

The Office, however, must consider this limitation as part of the claims. Where there is alleged new subject matter that it added to the claims, the Office must

> still consider the subject matter added to the claims in making rejections based on prior art since the new subject matter rejection may be overcome by applicant.

See *M.P.E.P. §2163.06 (I), paragraph 1.* According, when the Office issues an Advisory Action in response to the present Amendment, Applicant respectfully requests consideration of this limitation and an indication where this limitation is anticipated by Kalnins.

Further, the Office alleges that even through Kalnins does not teach the claimed pressure ranges, the apparatus of Kalnins would be structurally capable of such pressures. Such an argument, however, does not show anticipation. It is well established that where prior art which

teaches a value or range that "does not overlap or touch the claimed range [it] does not anticipate the claimed range." See *M.P.E.P. §2163.03 (III)*.

Thus, the Office has not shown that Kalnins teaches each and every limitation in the rejected claims. Accordingly, Applicant respectfully requests withdrawal of this ground of rejection.

Rejection – 35 U.S.C. § 103 over JP '209 & Kalnins

The Office has rejected claims 1-10 and 14-23 under 35 U.S.C. § 103(a) as being unpatentable over JP '209 in view of Kalnins for the reasons listed on pages 3-4 of the Office Action. Applicant respectfully traverses this rejection.

The Office recognizes that JP '209 fails to teach several limitations that are recited in the rejected claims. The Office contends that such limitations are disclosed by Kalnins. The Office concludes that it would have been obvious to modify the process of JP '209 as taught by Kalnins to facilitate the formation of the composite without overheating portions thereof.

Such a motivation, however, is not sufficient to combine the references in the suggested manner. The teachings of the prior art can only be combined where there is some teaching, suggestion, or motivation to do so found "either explicitly or implicitly in the references themselves or in the knowledge generally available to one of ordinary skill in the art." *See M.P.E.P.§ 2143.01*. The Office, however, has not shown where the proposed motivation is found either in the cited references or in the knowledge available to the skilled artisan.

Further, the skilled artisan would have understood that JP '209 did not have any problems with overheating. JP '209 describes temperatures of 300° C in paragraph [0042], 270° C in paragraph [0047], and 320° C in paragraph [0051]. All of the temperatures these are well below

the upper temperature of 500°C disclosed by Kalnins. *See column 5, line 51.* Having such low temperatures described in JP '209, the skilled artisan would have had understood that no overheating existed in JP '209 and, therefore, no reason existed to modify the disclosure of JP '209.

Moreoever, the Office has not shown that even if the combination was proper, the combined references would teach or suggest each and every claim limitation. Several dependent claims recite that the compression occurs at a pressure of about 0.7 to about 4.1 MPa. The Office has not substantiated the teachings of the combined references teach or suggest this pressure range.

In response to such arguments, the Office argues that the references would have been "properly combined in that one of ordinary skill in the art would have known of methods and means to control composite molding processes." Such arguments, however, do not show where the motivation is found "either explicitly or implicitly in the references themselves or in the knowledge generally available to one of ordinary skill in the art." *See M.P.E.P.§ 2143.01.* Thus, the Office has not shown *prima facie* case of obviousness by showing where such motivation is found.

The Office argues that the "exact pressure would certainly have been within the skill level of the art." The Office, however, has not shown how the combined apparatus or processes of JP '209 and Kalnins would have been modified to arrive at the claimed range. Merely alleging that it is within "the skill in the art" does not satisfy the Office's burden since the

> fact that the claimed invention is within the capabilities of one of ordinary skill in the art is not sufficient by itself to establish *prima facie* obviousness.

See M.P.E.P.§ 2143.01. Thus, the Office has not shown *prima facie* case of obviousness by merely alleging that it would have been within the skill in the art.

Thus, the Office has not substantiated that the skilled artisan would have considered the rejected claims obvious over the proposed combination of JP '209 and Kalnins. Accordingly, Applicant requests withdrawal of this rejection.

CONCLUSION

For the above reasons, Applicant respectfully requests the Office to withdraw the above grounds of rejection and allow the pending claims.

If there is any fee due in connection with the filing of this Amendment, including a fee for any extension of time not accounted for above, please charge the fee to our Deposit Account No. 50-0843.

Respectfully Submitted,

By _____
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Date: September 7, 2004